Listing of Claims:

1-35. **(Canceled)**

36. **(Previously presented)** An integrated biosensor and simulation system comprising: at least one biosensor for sensing a biological target to generate a signal; a simulator for using the signal and a model of the target to generate a therapeutic or diagnostic output; and wherein said sensor is reconfigurable by said simulator.

37. **(Previously presented)** The system of claim 36 wherein: the sensor senses a food material for consumption by the biological target to generate a second signal, the simulator further using the second signal to generate the therapeutic or diagnostic output.

38. **(Previously presented)** The system of claim 36 wherein: the simulator generates the output according to a regulatory condition.

39. **(Previously presented)** The system of claim 36 wherein: the sensor couples to the simulator via a programmable switch.

40. **(Previously presented)** A method comprising the steps of: sensing with a biosensor a biological target to generate a signal; simulating with a simulator using the signal and a model of the target to generate a therapeutic or diagnostic output; and wherein said simulator reconfigures said biosensor.

41. **(Previously presented)** The method of claim 40 wherein: the sensor senses a food material for consumption by the biological target to generate a second signal, the simulator further using the second signal to generate the therapeutic or diagnostic output.

42. **(Previously presented)** The method of claim 40 wherein: the simulator generates the output according to a regulatory condition.

43. **(Previously presented)** The method of claim 40 wherein: the sensor couples to the simulator via a programmable switch.

44. **(Previously presented)** The method of claim 40, wherein said sensor is implanted in a subject's mouth, larynx, blood vessel, vein, nose, ear, eye, heart, brain, lymph node, lung, breast, stomach, pancreas, kidney, colon, rectum, ovary, uterus, bladder or prostate.

45. **(Previously presented)** The method of claim 40, wherein said biosensor comprises an array of at least two sensors.

46. **(Previously presented)** The method of claim 45, wherein said at least two sensors are capable of sensing two different biological targets.

47. **(Previously presented)** The method of claim 46, wherein said different biological targets are selected from a group consisting of DNA, RNA, peptide, antibody, antigen, tissue factor, virus, lipid, fatty acid, steroid, neurotransmitter, carbohydrate, free radical, neural, chemical, metabolite and cell.

48. **(Previously presented)** The method of claim 40, wherein said reconfiguring comprises activating or deactivating said biosensor.

49. **(Previously presented)** The method of claim 45, wherein said reconfiguring comprises activating or deactivating at least one of said at least two sensors.

50. **(Withdrawn)**

51. **(Previously presented)** The system of claim 36, wherein said simulator is capable of activating or deactivating said sensor.

52. **(Previously presented)** The system of claim 36, wherein said sensor is capable of functioning in a subject's mouth, larynx, blood vessel, vein, nose, ear, eye, heart, brain, lymph node, lung, breast, stomach, pancreas, kidney, colon, rectum, ovary, uterus, bladder or prostate.

53. **(Previously presented)** The system of claim 36, wherein said biosensor comprises said at least one sensor and at least a second sensor.

54. **(Previously presented)** The system of claim 53, wherein said at least one sensor and said at least second sensor are capable of sensing two different biological targets.

55. **(Previously presented)** The systems of claim 54, wherein said different biological targets are selected from a group consisting of DNA, RNA, peptide, antibody, antigen, tissue factor, virus, lipid, fatty acid, steroid, neurotransmitter, carbohydrate, free radical, neural, chemical, metabolite and cell.